

WHAT IS CLAIMED IS:

1. An integrating apparatus comprising:

a plurality of integrating circuits for integrating an input signal and then outputting the integrated input signal; and

selecting means for selectively deriving an output having a lowest level from among outputs of the plurality of integrating circuits;

wherein the plurality of integrating circuits have different fall time constants.

2. The integrating apparatus of claim 1, wherein the integrating circuits are controlled so that the smaller the fall time constant, the higher an average value of the output levels is.

3. The integrating apparatus of claim 1, comprising first amplifying means for amplifying the input signals inputted to the plurality of integrating circuits,

wherein the first amplifying means has amplification factors corresponding to the fall time constants of the integrating circuits to which the input signals are inputted, the amplification factor being larger, the smaller the fall time constant.

4. The integrating apparatus of claim 3, wherein each of the plurality of integrating circuits comprises:

adding means for adding an input signal and a feedback

signal and then outputting the added signal;

delaying means for delaying the output of the adding means and then producing the delayed output; and

second amplifying means for amplifying the output of the delaying means and then producing the amplified output,

wherein the output of the second amplifying means is inputted to the adding means as the feedback signal, and the output of the adding means is produced as the output of the integrating circuit.

5. The integrating apparatus of claim 4, wherein the second amplifying means has a gain of less than one.

6. The integrating apparatus of ^{claim 5} ~~claims 4 or 5~~, wherein the adding means samples and computes the signal at predetermined sampling time intervals.

7. The integrating apparatus of claim 6, wherein the delaying means delays the signal on a timescale of the predetermined sampling time intervals.

8. An audio system comprising:

an audio source for outputting an audio signal;

attenuating means for attenuating the audio signal in response to a level of a control signal; and

noise detecting means for outputting a noise signal in response to a noise level;

the audio system comprising the integrating apparatus, wherein the integrating circuits of the integrating

09300381-042799

apparatus receive the noise signal as an input signal, and the attenuating means receives the output signal of the selecting means as a control signal.

9. A signal processing apparatus comprising:

one or more sensors for detecting a level of physical or chemical value; and

the integrating apparatus according to ^{claim} ~~any one of claims~~
~~1 to 7~~, to which the output of the sensor is supplied.